CLAIMS

What is claimed is:

1   1.   A computer system, comprising:

2   a CPU;

3   a battery subsystem;

4   an AC adapter coupled to said CPU and said battery subsystem, said adapter regulating its

5   output voltage for variations in output current until said output current reaches a

6   threshold above which said adapter regulates its output power to an approximately

7   constant level.

2.   The system of claim 1 wherein said adapter regulates its output power by reducing its

output voltage.

3.   The system of claim 1 wherein said adapter includes a transformer and a power control

circuit coupled to a voltage feedback circuit, said voltage feedback circuit provides a feedback

signal to the transformer to regulate the output voltage from the adapter, and said power control

4   circuit causes said voltage feedback circuit to cause a reduction in the adapter's output voltage

5   when said output current exceeds said threshold.

1   4.   The system of claim 3 wherein said power control circuit responds to changes in current

2   more slowly than said voltage feedback circuit responds to changes in voltage.

1   5.   A computer system, comprising:

2   a CPU;

3   a battery subsystem;

4   a means for regulating an AC adapter's output voltage; and

5   a means for regulating an AC adapter's output power when the adapter's output current

6   exceeds a threshold.

1   6.   The system of claim 5 wherein said means for regulating the output power includes a

2   means for causing the output voltage to be reduced as output current increases.

1   7.   The system of claim 5 wherein said means for regulating an AC adapter's output power

2   responds to changes in output current more slowly than said means for regulating an AC adapter's

3   output voltage responds to changes in voltage.

1   8.   An AC adapter, comprising:

2   an output voltage regulator which regulates the output voltage of said adapter to an

3   approximately constant level if the adapter's output current is below a threshold;

4   and

5   a power regulator coupled to said output voltage regulator, said power regulator regulates

6   the output power of said adapter when said output current exceeds said threshold.

1   9.   The adapter of claim 8 wherein said power regulator regulates the output power by causing

2   the voltage regulator to reduce the output voltage.

1   10.   The adapter of claim 8 wherein said adapter further includes a transformer and said voltage

2   regulator provides a feedback signal to the transformer to cause the output voltage from the adapter

3   to be a certain voltage, and said power control circuit causes said voltage feedback circuit to cause

4   a reduction in the adapter's output voltage when said output current exceeds said threshold.

1   11.   The power regulator of claim 10 wherein said power regulator responds to changes in

2   current more slowly than said voltage regulator responds to changes in voltage.

1   12.   An AC adapter, comprising:

2   a means for regulating an AC adapter's output voltage; and

3   a means for regulating an AC adapter's output power when the adapter's output current

4   exceeds a threshold.

1   13.   The adapter of claim 12 wherein said means for regulating the output power includes a

2   means for causing the output voltage to be reduced as output current increases.

1   14.   The adapter of claim 5 wherein said means for regulating an AC adapter's output power

2   responds to changes in output current more slowly than said means for regulating an AC adapter's

3   output voltage responds to changes in voltage.

1   15.   A method of adjusting power load in a computer system including an AC adapter which

2   concerts AC voltage to DC voltage for use of a plurality of loads, said method comprising:

3   (a)   regulating the output voltage of an AC adapter to an approximately constant level

4   as long as the adapter's output current is less than a threshold;

5   (b)   reducing the output voltage of the adapter when said output current exceeds said

6   threshold;

7   (c)   detecting a reduction in adapter output voltage; and

8   (d)   throttling back a load in response to the reduction in voltage.

1   16.   The method of claim 15 wherein (d) includes reducing the charge current through a

2   rechargeable battery.

1   17.   The method of claim 15 wherein (d) includes reducing the clock frequency of a processor.

1   18.   The method of claim 15 wherein (d) includes reducing the brightness of a display.

1   19.   A method of adjusting power load in a computer system including an AC adapter which

2   concerts AC voltage to DC voltage for use of a plurality of loads, said method comprising:

3   (a)   a step for regulating the output voltage of an AC adapter to an approximately

4   constant level as long as the adapter's output current is less than a threshold;

5   (b)   a step for reducing the output voltage of the adapter when said output current

6   exceeds said threshold;

7   (c)   a step for detecting a reduction in adapter output voltage; and

8   (d)   a step for throttling back a load in response to the reduction in voltage.

1   20.   The method of claim 19 wherein said load in (d) includes a battery charger.

1   21.   The method of claim 19 wherein said load in (d) includes a processor.

1   22.   The method of claim 19 wherein said load in (d) includes a display.